

16DP4-A CATHODE-RAY TUBE

16-INCH ROUND, GLASS FOCUS—MAGNETIC DEFLECTION—MAGNETIC

14½ BY 10%-INCH PICTURE SIZE FACEPLATE—SPHERICAL, GRAY ION-TRAP GUN

60-DEGREE DEFLECTION ANGLE

DESCRIPTION AND RATING =

The 16DP4-A is a magnetic-focus and -deflection, direct-view all-glass picture tube which provides a $14\frac{1}{2}$ by $10\frac{7}{8}$ -inch picture with rounded sides for television applications. Features of this tube include a high-quality gray faceplate to increase picture contrast and detail under high ambient light conditions, and an electron gun which was designed for use with an external double-field ion-trap magnet.

GENERAL

ELECTRICAL

3 Volts
Amperes
Degrees
$5~\mu\mu { m f}$
5 μμ f
2

OPTICAL

Phosphor Number—P4, Sulfide Type
Fluorescent Color—White
Phosphorescent Color—White
Persistence—Short
Faceplate—Gray



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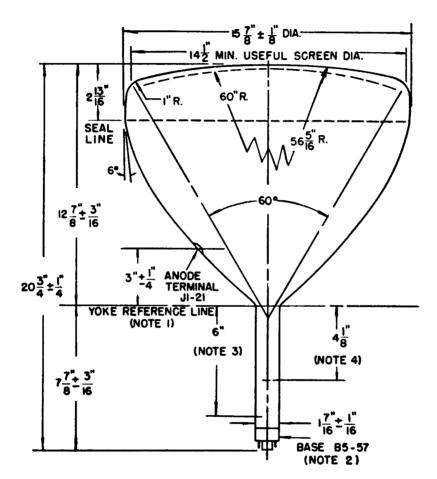
Over-all Length $20\frac{34}{2}$ $\pm \frac{14}{2}$ Greatest Bulb Diameter $15\frac{78}{8}$ $\pm \frac{16}{2}$ Minimum Useful Screen Diameter $14\frac{1}{2}$ Neck Length $7\frac{7}{8}$	Inches Inches
Bulb Number, ASA Designation—J127B Bulb Contact—Recessed Small-cavity Cap, JETEC No. J1-21 Base—Small-shell Duodecal 5-pin, JETEC No. B5-57 Basing, JETEC Designation—12D Bulb Contact Alignment Anode Contact Aligns with Pin No. 3 Position ±30 Degrees	
Mounting Position—Any Net Weight, approximate16½	Pounds
MAXIMUM RATINGS	
DESIGN-CENTER VALUES*	W W 15 50
Anode Voltage†	
Grid-No. 1 Voltage	Max voits DC
Negative-Bias Value	Max Volte DC
Positive-Bias Value	
Positive-Peak Value	
Peak Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	Max Volts
Heater Positive with Respect to Cathode	Max Volts
TYPICAL OPERATING CONDITIONS	
Anode Voltage‡ 12,000 Grid-No. 2 Voltage 300 Grid-No. 1 Voltage§ -28 to -72 Focusing-Coil Currentπ, approximate 101	Volts DC Volts DC Milliamperes DC
lon-Trap Field Intensity△, approximate	Gausses

CIRCUIT VALUES

[♦] All voltages are measured with respect to cathode.

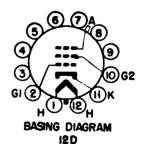
^{*} The maximum ratings provide a ten-percent safety factor in accordance with the standard design-center system of rating cathode-ray tubes. The tube will withstand the combined effects of variations in line voltage and components provided the maximum design-center values are not exceeded by more than ten percent.

- † Anode and grid-No. 3 which are connected together within the tube are referred to herein as anode.
- ‡ Brightness and focus quality decrease with decreasing anode voltage. In general, the anode voltage should not be less than 9,000 volts.
- § For visual extinction of focused raster.
- π For RETMA focusing coil No. 109 with distance from the yoke-reference-line to center-of-air-gap equal to 41/8 inches.
- △Double-field ion-trap magnet adjusted to optimum position, equivalent to 120 milliamperes through RETMA ion-trap magnet No. 108.



NOTES:

- I. REFERENCE LINE IS DETERMINED BY THE PLANE OF THE UPPER EDGE OF THE REFERENCE-LINE GAGE (RETMA NO. 112) WHEN THE GAGE IS RESTING ON THE CONE.
- 2. ANODE TERMINAL ALIGNS WITH PIN-NO. 3 POSITION ±30 DEGREES.
- 3. APPROXIMATE POSITION OF ION-TRAP MAGNET.
- 4. RECOMMENDED POSITION FOR CENTER OF FOCUSING FIELD.



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